

AMENDMENTS TO THE CLAIMS

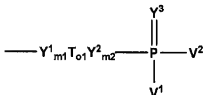
This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims:

Claim 1 (Previously presented): A coated stent for implantation in human vessels, orifices, and conduits, and for creating and sustaining openings there and for preventing restenosis thereof after implantation, wherein the coated stent comprises a stent structure coated with a compound containing a high density, negatively charged domain of at least three vicinally oriented phosphorus-containing radicals.

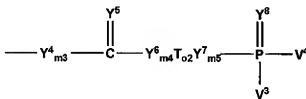
Claim 2 (Currently amended): A coated stent according to claim 1 wherein the phosphorus-containing radicals have the following formula:

a)



or

b)



wherein:

V^1 to V^4 are each have the formula $\text{X}^8_{m6}\text{T}_{o3}\text{U Y}^9_{m6}\text{T}_{o3}\text{U}$;

T_{o1} to T_{o3} are the same or different in the above formula and are each independently selected from the group consisting of $(\text{CH}_2)_n$, CHCH , ~~or~~ and $\text{CH}_2\text{CHCHCH}_2$;

o1 to o3 are independently 0 or 1; ~~0 to 1~~

n is 0 to 4;

U is has a formula selected from the group consisting of $R^4Y^9_m$, $R^1Y^{10}_m$, $CY^{10}Y^{11}R^3$, $CY^{11}Y^{12}R^2$, $SY^{13}Y^{14}R^3$, $SY^{13}Y^{14}Y^{15}R^3$,

$PY^{15}Y^{16}Y^{17}R^4R^5$, $PY^{16}Y^{17}Y^{18}R^4R^5$, $Y^{18}PY^{19}Y^{20}Y^{21}R^6R^7$, $Y^{19}PY^{20}Y^{21}Y^{22}R^6R^7$, CH_2NO_2 , $NHSO_2R^8$, and ~~or~~ $NHCY^{22}Y^{23}R^9$, $NHCY^{23}Y^{24}R^9$.

m1 to m7 are independently 0 or 1; ~~0 to 1~~

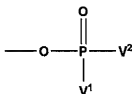
Y^1 to Y^{23} , Y^{24} are the same or different and are each independently selected from the group consisting of NR^{10} , NOR^{11} , O, and ~~or~~ S; and

and where wherein R^1 to R^{11} are the same or different and are each independently selected from the group consisting of:

- i) hydrogen;
 - ii) a straight or branched saturated or unsaturated alkyl residue containing 1-22 carbon atoms;
 - iii) a saturated or unsaturated aromatic or non-aromatic homo- or heterocyclic residue containing 3-22 carbon atoms and 0-5 heteroatoms consisting of nitrogen, oxygen or sulfur;
 - iv) a straight or branched saturated or unsaturated alkyl residue containing 1-22 carbon atoms substituted with a saturated or unsaturated aromatic or non-aromatic homo- or heterocyclic residue containing 3-22 carbon atoms and 0-5 heteroatoms consisting of nitrogen, oxygen or sulfur; and
 - v) an aromatic or non-aromatic homo- or heterocyclic residue containing 3-22 carbon atoms and 0-5 heteroatoms consisting of nitrogen, oxygen or sulfur substituted with a straight or branched saturated or unsaturated alkyl residue containing 1-22 carbon atoms,
- wherein for in the said groups ii-v, the residues and/or the substituents thereof being are substituted with 0-6 of the following groups substituents independently selected from the

group consisting of hydroxy, alkoxy, aryloxy, acyloxy, carboxy, alkoxycarbonyl, alkoxy carbonyloxy, aryloxy carbonyl, aryloxy carbonyloxy, carbamoyl, fluoro, chloro, bromo, azido, cyano, oxo, oxa, amino, imino, alkylamino, arylamino, acylamino, arylazo, nitro, alkylthio, and ~~or~~ alkylsulfonyl.

Claim 3 (Currently amended): A coated stent according to claim 2 wherein the phosphorus-containing radicals have the following formula:



wherein V¹ and V² are the same or different in the above formula and are each independently selected from the group consisting of OH, (CH₂)_pOH, COOH, CONH₂, CONOH, (CH₂)_pCOOH, (CH₂)_pCONH₂, (CH₂)_pCONOH, (CH₂)_pSO₃H, (CH₂)_pSO₃ NH₂, (CH₂)_pNO₂, (CH₂)_pPO₃H₂, O(CH₂)_p OH, O(CH₂)_p COOH, O(CH₂)_pCONH₂, O(CH₂)_pCONOH, (CH₂)_pSO₃H, O(CH₂)_pSO₃NH₂, O(CH₂)_pNO₂, O(CH₂)_pPO₃H₂, and CF₂COOH, wherein and p is a value from 1 to 4.

Claim 4 (Original): A coated stent according to claim 3 wherein the phosphorus-containing radicals are phosphate groups.

Claim 5 (Previously presented): A coated stent according to any one of claims 1-4 wherein a backbone to the high density negatively charged region of vicinally oriented phosphorus-containing radicals is a cyclic moiety.

Claim 6 (Original): A coated stent according to claim 5 wherein the backbone is a saturated or unsaturated aromatic or non-aromatic homo- or heterocyclic moiety where the heteroatom is nitrogen, oxygen, sulfur or selenium.

Claim 7 (Currently amended): A coated stent according to claim 6 wherein the cyclic moiety comprises 4 to 24 atoms, ~~preferably 5 to 18 atoms.~~

Claim 8 (Original): A coated stent according to claim 7 wherein the cyclic moiety is selected from the group of cyclopentane, cyclohexane, cycloheptane, inositol, monosaccharide, disaccharide, trisaccharide, tetrasaccharide, piperidin, tetrahydrothiopyran, 5-oxotetrahydrothiopyran, 5,5-dioxotetrahydrothiopyran, tetrahydroselenophyran, tetrahydrofuran, pyrrolidine, tetrahydrothiophene, 5-oxotetrahydrothiophene, 5,5-dioxotetrahydrothiophene, tetrahydroselenophene, benzene, cumene, mesitylene, naphthalene and phenanthrene.

Claim 9 (Previously presented): A coated stent according to claim 8 wherein the cyclic moiety is selected from the group of alloinositol, cisinositol, epiinositol, D/L-chiroinositol, scylloinositol, myoinositol, mucoinositol and neoinositol.

Claim 10 (Withdrawn): The coated stent according to claim 8 wherein the cyclic moiety is selected from the group of D/L-ribose, D/L-arabinose, D/L-xylose, D/L-lyxose, D/L-allose, D/L-altrose, D/L-glucose, D/L-mannose, D/L-gulose, D/L-idose, D/L-galactose, D/L-talose, D/L-ribulose, D/L-xylulose, D/L-psicose, D/L-sorbose, D/L-tagatose and D/L-fructose.

Claim 11 (Original): A coated stent according to claim 3 wherein one of the phosphorus-containing radicals is axial and, two of the phosphorus-containing radicals are equatorial.

Claim 12 (Withdrawn): A coated stent according to claim 11 wherein the compound is selected from the group of myo-inositol-1,2,6-trisphosphate, myo-inositol-hexa-kis-phosphate, mannose-2,3,4-trisphosphate, rhamnose-2,3,4-trisphosphate, galactose-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-mannopyranoside-2,3,4-trisphosphate, 1,5-anhydro-D-arabinitol-2,3,4-trisphosphate, fructose-2,3,4-trisphosphate, 1,2-O-ethylene- β -D-fructopyranoside-2,3,4-trisphosphate, cyclohexane-1,2,3-triol trisphosphate, 1,5-dideoxy-1,5-iminoarabinitol-2,3,4-

trisphosphate, altrose-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-altropyranoside-2,3,4-trisphosphate or derivatives thereof.

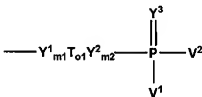
Claim 13 (Withdrawn): A method of selecting a restenosis resistant stent for implantation in a human patient; the method comprising the steps of:

selecting a coated stent for implantation in human vessels, orifices, and conduits, and for creating and sustaining openings there and for preventing, alleviating or combating restenosis thereof after implantation,

wherein the coated stent comprises a stent structure coated with a compound containing a high density, negatively charged domain of at least three vicinally oriented phosphorus-containing radicals.

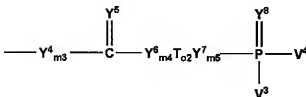
Claim 14 (Withdrawn): The method according to claim 13 wherein the compound containing phosphorus-containing radicals have the following formula:

a)

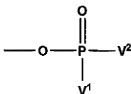


or

b)



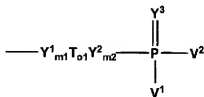
Claim 15 (Withdrawn): The method according to claim 13 where the compound containing phosphorus-containing radicals have the following formula:



Claim 16 (Withdrawn): The use method according to claim 13 wherein the compound is selected from the group of myo-inositol-1,2,6-trisphosphate, myo-inositol-hexakisphosphate, mannose-2,3,4-trisphosphate, rhamnose-2,3,4-trisphosphate, galactose-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-mannopyranoside-2,3,4-trisphosphate, 1,5-anhydro-D-arabinitol-2,3,4 trisphosphate, fructose-2,3,4-trisphosphate, 1,2-O-ethylene- β -D-fructopyranoside-2,3,4-trisphosphate, cyclohexane-1,2,3-triol trisphosphate, 1,5-dideoxy-1,5-iminoarabinitol-2,3,4-trisphosphate, altrose-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-atropyranoside-2,3,4-trisphosphate or derivatives thereof.

Claim 17 (New): A coated stent according to claim 7 wherein the cyclic moiety comprises 5 to 18 atoms.

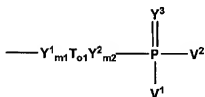
Claim 18 (New): A coated stent according to claim 1 wherein the phosphorus-containing radicals have the following formula:



wherein V^1 and V^2 are the same in the above formula and the compound is selected from the group consisting of D-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-methyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-hexanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-butanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-pentanoyl-myo-inositol-1,2,6-

trisphosphate, D-3,4,5-tri-O-isobutanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-propanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-(6-hydroxy-4-oxa)hexanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-3-(ethylsulphonyl)propanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-3-hydroxypropanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-(6-hydroxy)-hexanoyl-myo-inositol-1,2,6-trisphosphate, D-5-O-hexanoyl-myo-inositol-1,2,6-trisphosphate, D-3,4,5-tri-O-phenylcarbamoyl-myo-inositol-1,2,6-trisphosphate, mannose-2,3,4-trisphosphate, galactose-2,3,4-trisphosphate, fructose-2,3,4-trisphosphate, altrose-2,3,4-trisphosphate, rhamnose-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-mannopyranoside-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-galactopyranoside-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-glycopyranoside-2,3,4-trisphosphate, methyl-6-O-butyl- α -D-altropyranoside-2,3,4-trisphosphate, methyl-6-O-butyl- β -D-fructopyranoside-2,3,4-trisphosphate, 1,5-anhydro-D-arabinitol-2,3,4-trisphosphate, 1,5-anhydroxylitol-2,3,4-trisphosphate, 1,2-O-ethylene- β -D-fructopyranoside-2,3,4-trisphosphate, methyl- α -D-rhamno-pyranoside-2,3,4-trisphosphate, methyl- α -D-mannopyranoside-2,3,4-trisphosphate, and 1,5-dideoxy-1,5-iminoarabinitol-2,3,4-trisphosphate.

Claim 19 (New): A coated stent according to claim 1 wherein the phosphorus-containing radicals have the following formula:



wherein V^1 and V^2 are different in the above formula and the compound is selected from the group consisting of D-myo-inositol-1,2,6-tris(carboxymethylphosphate), D-myo-inositol-1,2,6-tris(hydroxymethylphosphate), 3,4,5-tri-O-propanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphate), D-3,4,5-tri-O-butanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphate), D-3,4,5-tri-O-isobutanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphate), D-3,4,5-tri-O-pentanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphate), D-3,4,5-tri-O-hexanoyl-myo-inositol-1,2,6-

tris(carboxymethylphosphate), D-3,4,5-tri-O-propanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphonate), D-3,4,5-tri-O-butanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphonate), D-3,4,5-tri-O-isobutanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphonate), D-3,4,5-tri-O-pentanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphonate), D-3,4,5-tri-O-hexanoyl-myo-inositol-1,2,6-tris(carboxymethylphosphonate), D-3,4,5-tri-O-propanoyl-myo-inositol-1,2,6-tris(hydroxymethylphosphonate), D-3,4,5-tri-O-butanoyl-myo-inositol-1,2,6-tris(hydroxymethylphosphonate), D-3,4,5-tri-O-isobutanoyl-myo-inositol-1,2,6-tris(hydroxymethylphosphonate), D-3,4,5-tri-O-pentanoyl-myo-inositol-1,2,6-tris(hydroxymethylphosphonate), D-3,4,5-tri-O-hexanoyl-myo-inositol-1,2,6-tris(hydroxymethylphosphonate), methyl-6-O-butyl- α -D-mannopyranoside-2,3,4-tris-(carboxymethylphosphate), methyl-6-O-butyl- α -D-mannopyranoside-2,3,4-tris(carboxymethylphosphonate), methyl-6-O-butyl- α -D-mannopyranoside-2,3,4-tris(hydroxymethylphosphonate), methyl-6-O-butyl- α -D-galactopyranoside-2,3,4-tris(carboxymethylphosphate), methyl-6-O-butyl- α -D-galactopyranoside-2,3,4-tris(carboxymethylphosphonate), methyl-6-O-butyl- α -D-galactopyranoside-2,3,4-tris(hydroxymethylphosphonate), methyl-6-O-butyl- α -D-glucopyranoside-2,3,4-tris(carboxymethylphosphate), methyl-6-O-butyl- α -D-glucopyranoside-2,3,4-tris(tris(carboxymethylphosphonate), methyl-6-O-butyl- α -D-glucopyranoside-2,3,4-tris(hydroxymethylphosphonate), methyl-6-O-butyl- α -D-altropyranoside-2,3,4-tris-(carboxymethylphosphate), methyl-6-O-butyl- α -D-altropyranoside-2,3,4-tris-(carboxymethylphosphonate), methyl-6-O-butyl- α -D-altropyranoside-2,3,4-tris-(hydroxymethylphosphonate), methyl-6-O-butyl- α -D-fructopyranoside-2,3,4-tris-(carboxymethylphosphate), methyl-6-O-butyl- β -D-fructopyranoside-2,3,4-tris(tris(carboxymethylphosphonate), methyl-6-O-butyl- β -D-fructopyranoside-2,3,4-tris(hydroxymethylphosphonate), 1,5-dideoxy-1,5-iminoarabinitol-2,3,4-tris(carboxymethylphosphate), 1,5-dideoxy-1,5-imino-arabinitol-2,3,4-tris(carboxymethylphosphonate), 1,5-dideoxy-1,5-iminoarabinitol-2,3,4-tris(hydroxymethylphosphonate), 1,5-dideoxy-1,5-imino-N-(2-phenylethyl)-arabinitol-2,3,4-tris(carboxymethylphosphate), 1,5-dideoxy-1,5-imino-N-(2-phenylethyl)arabinitol-2,3,4-

tris(carboxymethylphosphonate), and 1,5-dideoxy-1,5-imino-N-(2-phenylethyl)arabinitol-2,3,4-tris(hydroxymethylphosphonate).

Claim 20 (New): The coated stent according to claim 18 wherein the compound is D-myo-inositol-1,2,6-trisphosphate.